CONTINUING ELIGIBILITY INSPECTION (CEI) REPORT

FOR FLOOD CONTROL PROJECTS

1. Project Name: Iao Stream FCP for FY03

2. Date of Inspection: October 28, 2002

3. Inspection Personnel:

	Name	Agency/Office	Telephone No.
a.	Dan Meyers	CEPOH-EC-T	438-8875
b.	Eric Li	CEPOH-EC-T	438-8862
C.	Leonard Costa	DPW, Division Supervisor	270-7869

4. Discussion:

The project: Iao Stream FCP is located in Wailuku, Maui, authorized by the Flood Control Act of 1968. The project was completed in 1980 and provides for a debris basin about 2.5 miles upstream of the mouth of Iao Stream, channel improvements from the debris basin to about 1,100 liner feet downstream of Market Street Bridge, diversion levees and channel improvements to the Waiehu Bridge. Maintenance deficiencies were noted and suggestions were made to the DPW representatives. These deficiencies and suggestions are listed below. All given stations are based on the main channel unless otherwise stated. Refer to alphabetical lettered "photo plan" in back of report for picture reference.

FY03 CEI Ratings

Project Rating: "M, Marginally Satisfactory"
Project Condition Code: "M, Minimally Acceptable"

Project Status: "Active"

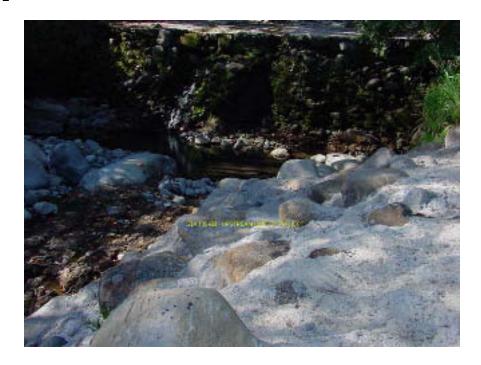
* = no change from report inspected Oct. 30, 2001.



Table. Summary of defects.

Station	Location	Description
130+50	Levee H, LB	Clean weep holes of vegetation
		(typical).
127+00	Levee H, debris basin	Remove debris, clear gratings, and
	,	remove vegetation on RB levee.
127+00	Levee H, LB fence line	Remove tree from fence.
125+00	Levee H, channel	Remove vegetation.
119+00	Levee H, RB drop apron	Remove vegetation from weep holes
	#1	(typical).
114+50	Levee H, RB drop apron	Remove vegetation from weep holes and
	#2	trees from top of fence.
109+75	Levee H, drop apron #3	Remove vegetation on LB and RB.
99+50	LB, downstream Market	Remove tree branch encroachment from
	Street Bridge	top of LB.
96+75	LB, downstream Market	Repair eroded concrete hole (6'L x 5'W
	Street Bridge after	x 3'D) in swale. Same comment from
	first drop structure	FY02 report.
93+25	RB, 350' downstream of	Sidewall and channel invert are
	first drop structure	settling. Need to monitor 40'x50'
	from Market Street	area. Remove tree and debris at top of
	Bridge	RB wall for further inspection. Beware
	_	of geese and dogs at top of RB.
85+00	Levee G, access road	Cut vegetation and restore viable path
0.5.00		to access road.
85+00	Levee G	Fill in eroded bottom wall of levee
05.00	7 0	and remove vegetation in vicinity.
85+00	Levee G	Replace damaged flapgate.
87+50	Levee G	Remove vegetation material. Beware of
90+00	Levee G	dogs.
90+00	Levee G	Remove stockpile debris, vegetation, and fencing encroachments on levee.
		Beware of dogs.
79+36	RB, Levee E	Vegetation to remain in order to
79+30	KB, Levee E	stabilize bank. Continue to monitor
		levee.
65+25	RB, Levee C and D, and	Verify all encroachments onto levee
to	Revetment X on	within these stations. Do the
57+00	townside	encroachments enter levee easements.
64+70	RB, between Levee D	Remove peacock shaped tree.
	and C	
57+50	RB, Revetment X	Remove two plumeria trees from levee.
51+40	Levee F	Remove debris, restore sideslope, and
		cut vegetation.
49+00	LB, Revetment X limits	Monitor eroded area.
45+00	RB, Levee B	Remove vegetation from both 54" RCP
		drain pipes.
38+50	RB, between Levee B	Repair and stabilize eroded stream
	and A	sideslope.
19+65	Channel under Waiehu	Remove rocks and vegetation.
to 0+00	Bridge to mouth of	
	stream.	

Levee I

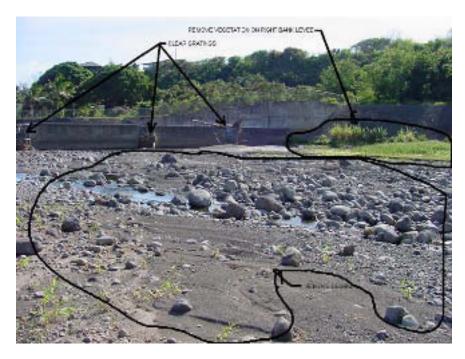


a. Overview of the grouted rock slope protection on the Left Bank (LB) at Sta. 135+00 upstream of the debris basin, at Levee I.

Levee H



b. Sta. 130+50, Left Bank, (LB), clean weep holes as required.



c. Sta. 127+00, remove debris. Clear gratings. Remove vegetation on right bank levee.



d. Sta. 127+00, Left Bank, (LB), remove tree from fence line.



e. Sta. 125+00, overview - remove vegetation along channel.



f. Sta. 119+00, RB, drop apron #1 - remove vegetation from weepholes (typical).



g. Sta. 114+50, RB, drop apron #2 - remove vegetation and trees from top of fence.



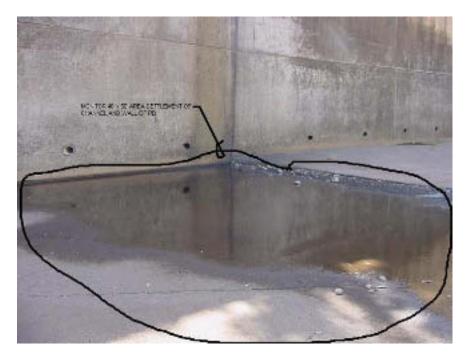
h. Sta. 109+75, drop apron #3 - remove vegetation on left and right bank.



i. Sta. 99+50, Left Bank (LB), remove tree/branch encroachment onto channel \star .



j. Sta. 96+75, LB, side of invert, eroded concrete not yet repaired from FY02 inspection \star .



k. Sta. 93+25, RB, sidewall and invert settling. (Location is about 350^{\prime} downstream of drop structure.) Repair invert.



1. Sta. 93+25, RB, remove tree and debris at top of RB wall to inspect damaged/settling portion of channel sidewall.

Levee G



m. Sta. 85+00, restore access road to channel by cutting vegetation.



n. Sta. 85+00, remove vegetation and fill in eroded bottom wall.



o. Sta. 85+00, replace damaged flapgate.



p. Sta. 87+50, remove encroachments (vegetation and fencing) and restore levee sideslope.



q. Sta. 90+00, remove stockpile debris and vegetation.



r. Sta. 90+00, remove unauthorized structure (dog fence) from levee sideslope on townside.

Levee E



s. Sta. 79+36, RB, no work required. Vegetation to remain to stabilize sideslope. Continue to monitor levee ${\tt E}$.

Levee D



t. Sta. 76+84 within Levee "D", overview.



u. Approximate Sta. 65+25 within Levee "D", 50' long white pvc fence. Verify if fence is an encroachment onto the levee; does fence intrude upon easement. Verify if there are any other encroachments on the levee between station 65+25 and station 57+00.

Levee C



v. Approximate Sta. 64+70 between Levees "C" and "D", remove peacock shaped tree.



w. Approximate Sta. 60+50 within Levee "C", middle of rocks on Lawai Place.

Revetment X



x. Approximate Sta. 59+00 within Revetment "X", middle of rocks on Iao Place.



y. Approximate Sta. 57+50 within Revetment "X", remove two (2) plumeria trees.



y2. Approximate Sta. 57+00 within Revetment "X", verify easement location in relation to the levee, ditch, and fence post. Take action as required if fence post is within easement.



z. Approximate Sta. 55+20 = Revetment "X" Sta. 6+50, 48" RCP drain line referenced from drawing, "Iao Stream Flood Control Project Revetment X Plan Profile and Typical Sections", dated June 17, 1980, sheet 7A, location code 7990-03, class 16 type 02 section 02.



aa. Approximate Sta. 49+00 within Revetment X, monitor eroded area.

Levee F



bb. Sta 51+40, remove debris, restore sideslope, and cut vegetation.

Levee B



cc. Approximate Sta. 45+00, RB, remove vegetation from two 54" RCP drain lines within levee B referenced from "Iao Parkside" drawings, sheet 11, dated December 4, 1992, Job No. 90044, by Warren S. Unemori Engineering Inc.



dd. Approximate Sta. 41+20, RB, end of rip rap separated by access road within levee B.



ee. Approximate Sta. 38+50, RB, repair eroded stream bank between levees "A" and "B".

Levee A



ff. Sta. 19+65, RB, remove rocks and vegetation under Waiehu Bridge and beyond.

Concrete Channel - Stream Realignment



gg. Approximate Sta. 18+50, RB, remove rocks and vegetation from channel bottom.



hh. Approximate Sta. 17+50, remove rocks and vegetation from channel bottom.

5. Findings/Conclusions:

In accordance with EP 500-1-1(dated 30 September 2001), and based on this CEI, the Project Rating Code is "M, Marginally Satisfactory". The project condition code is "M, MINIMALLY ACCEPTABLE", and the project status is considered "ACTIVE" in the Rehabilitation and Inspection Program.

Signed: Eric Li, E.I.T., CEPOH-EC-T
Signed: James Pennaz, P.E., Chief, CEPOH-EC-T

Enclosure(s)

- 1. Site Plan
- 2. Photo Plan
- 3. Fact Sheet, dated June 2002
- 4. Condition of Improvement, dated 30 September 1993